-- Final Covid analysis by using SQL

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Covid 19 Data Exploration

Skills used: Joins, CTE's, Temp Tables, Windows Functions, Aggregate Functions, Creating Views, Converting Data Types

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use portfolio\_projects;

Select \* From portfolio\_projects.coviddeaths\_csv;

Select \* From portfolio\_projects.covidvaccinated\_csv;

-- Q1 Total Cases vs Total Deaths

-- Shows likelihood of dying if you contract covid in your country

Select Location, date, total\_cases,total\_deaths, round((total\_deaths/total\_cases)\*100,3) as DeathPercentage

From portfolio\_projects.coviddeaths\_csv

Where location like 'India'

and continent is not null;

-- Q2 Total Cases vs Population

-- Shows what percentage of population infected with Covid in your country

Select Location, date, Population, total\_cases, (total\_cases/population)\*100 as PercentPopulationInfected

From portfolio\_projects.coviddeaths\_csv

Where location like 'India'

and continent is not null;

-- Q3 Countries with Highest Infection Rate compared to Population

select Location, Population, Date, MAX(total\_cases) as HighestInfectionCount, (Max(total\_cases)/population)\*100 as PercentPopulationInfected

From portfolio\_projects.coviddeaths\_csv

Group by Location, Population

order by PercentPopulationInfected desc;

-- Q4 Countries with Highest Death Count per Population

Select Location,Population,Date, MAX(Total\_deaths) as TotalDeathCount

From portfolio\_projects.coviddeaths\_csv

Where continent is not null

Group by Location, Population

order by TotalDeathCount desc;

-- highest death Percentage countries

Select Location,Population,Date, MAX(Total\_deaths) as TotalDeathCount, (MAX(Total\_deaths)/population)\*100 as PercentPopulationdeaths

From portfolio\_projects.coviddeaths\_csv

Where continent is not null

Group by Location, Population

order by PercentPopulationdeaths desc;

-- highest death Percentage countries in India

Select Location,Population,Date, MAX(Total\_deaths) as TotalDeathCount, (MAX(Total\_deaths)/population)\*100 as PercentPopulationdeaths

From portfolio\_projects.coviddeaths\_csv

Where Location like "India"

order by PercentPopulationdeaths desc;

-- Q5 BREAKING THINGS DOWN BY CONTINENT

-- Showing contintents with the highest death count per population

Select continent, MAX(Total\_deaths)as TotalDeathCount

From portfolio\_projects.coviddeaths\_csv

Where continent is not null

Group by continent

order by TotalDeathCount desc;

-- Q6) GLOBAL NUMBERS

Select SUM(new\_cases) as total\_cases, SUM(new\_deaths) as total\_deaths, SUM(new\_deaths)/SUM(New\_Cases)\*100 as DeathPercentage

From portfolio\_projects.coviddeaths\_csv

where continent is not null

order by 1,2;

-- Q7) Total Population vs Vaccinations

-- Shows Percentage of Population that has recieved at least one Covid Vaccine

Select dea.continent, dea.location, dea.date , dea.population, vac.new\_vaccinations

, SUM(vac.new\_vaccinations) OVER (Partition by dea.Location Order by dea.location, dea.Date) as RollingPeopleVaccinated,

(SUM(vac.new\_vaccinations) OVER (Partition by dea.Location Order by dea.location, dea.Date)/population)\*100 as PercentageRollingPeopleVaccinated

From portfolio\_projects.coviddeaths\_csv dea

Join portfolio\_projects.covidvaccinated\_csv vac

On dea.location = vac.location

and dea.date = vac.date

where dea.continent is not null

order by 2,3;

-- Using CTE to perform Calculation on Partition By in previous query

With PopVsVac (Continent, Location, Date, Population, New\_Vaccinations, RollingPeopleVaccinated)

as

(

Select dea.continent, dea.location, dea.date, dea.population, vac.new\_vaccinations,

SUM(vac.new\_vaccinations) OVER (Partition by dea.Location Order by dea.location, dea.Date) as RollingPeopleVaccinated

From portfolio\_projects.coviddeaths\_csv dea

Join portfolio\_projects.covidvaccinated\_csv vac

On dea.location = vac.location

and dea.date = vac.date

where dea.continent is not null

)

Select \*, (RollingPeopleVaccinated/Population)\*100 as PecentageRollingPeopleVaccinated

From PopVsVac;

-- Using View (previous query)

Create View PercentPopulationVaccinated as

Select dea.continent, dea.location, dea.date, dea.population, vac.new\_vaccinations

, SUM(vac.new\_vaccinations) OVER (Partition by dea.Location Order by dea.location, dea.Date) as RollingPeopleVaccinated

From portfolio\_projects.coviddeaths\_csv dea

Join portfolio\_projects.covidvaccinated\_csv vac

On dea.location = vac.location

and dea.date = vac.date

where dea.continent is not null;

select \*, (RollingPeopleVaccinated/population)\*100 from percentpopulationvaccinated;